

Notice of Allowability

Application No.

09/549,814

Examiner

Baoquoc N. To

Applicant(s)

HENDEL ET AL.

Art Unit

2162

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 12/07/2005.
2. ☒ The allowed claim(s) is/are 1-10, 14-20, 22-29, 33-48, 52-57 and 67-75.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☒ Interview Summary (PTO-413), Paper No./Mail Date 12/08/2005.
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.


JEAN M. CORRIELLUS
PRIMARY EXAMINER

DETAILED ACTION

1. Claims 1, 20 and 39 are amended in the amendment filed on 09/30/2005.

Claims 1-57 and 67-75 are pending in this application.

EXAMINER'S AMENDMENT

2. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Emmanuel A. Rivera on 12/05/2005.

Please amend the application as follow:

Claim 1 (Currently amended) A method for generating a dump file the method comprising:

- a. generating a minidump files that does not include all volatile system memory containing at least:
 - i. thread information for at least one running thread,
 - ii. context information for the thread,
 - iii. callstack information for the thread,
 - iv. processing information for a process in which the thread is running,
- and

- v. information identifying a reason comprising one of the following reasons: callstack fault, processor fault, and application program fault, for generating the minidump file;
- b. storing the minidump file to a storage medium.
- c. allocating a buffer space in memory during an initialization process, wherein the buffer space is suitable for storing the gathered information; and
- d. reserving space on the storage medium suitable for writing the content of the buffer space.

wherein generating the minidump file further includes initially storing the thread information, the context information, the callstack information, the process information, and the information identifying the reason for generating the minidump file to the buffer space, and then copying the minidump file from the buffer space to the storage medium and further comprising upon re-initialization, after having stored the minidump file to the storage medium, accessing the minidump file on the storage medium and using at least a portion of the minidump file to further understand an exception that was at least one reason for generating the minidump file.

Claim 11 (Cancelled).

Claim 12 (Cancelled).

Claim 13 (Cancelled).

Claim 20 (Currently amended) A computer-readable medium having computer-executable instructions for causing at least one processor to perform acts comprising:

gathering minidump file information that node not including all volatile system memory but does include at least thread information for at least one running thread, context information for the thread, callstack information for the thread, process information for the process which the thread is running, and information identifying a reason comprising one of the following reasons: callstack fault, processor fault, and application program fault, for generating the minidump file;

allocating a buffer space in memory during an initialization process, wherein the buffer space is suitable for storing the minidump file information; and

reserving space on a storage medium drive suitable for writing the contents of the buffer space.

wherein generating the minidump file further including storing the dump file to a storage medium.

wherein generating the minidump file further includes initially storing the thread information, the context information, the callstack information, the process information, and the information identifying the reason for generating the minidump file to the buffer space, and then copying file from the buffer space to the storage medium; and upon reinitialization after having stored the minidump file to the storage medium, accessing the minidump file on the storage medium and using at least a portion of the minidump file to further understand an exception that was at least one reason for generating the minidump file.

Claim 21 (Cancelled).

Claim 30 (Cancelled).

Claim 31 (Cancelled).

Claim 32 (Cancelled).

Claim 39 (Currently amended) An apparatus comprising:

memory;

a data storage drive configured to write data files to at least one data storage medium;

at least one processor operatively coupled to the memory and the data storage drive and configured to:

a. generating a minidump file that does not include all volatile system memory containing at least:

i. thread information for at least one running thread,

ii. context information for the thread,

iii. callstack information for the thread,

iv. process information for the process in which the thread is running; and

v. information identifying a reason comprising one of the following reasons: callstack fault, processor fault, and application program fault, for generating the minidump file, and

b. store the minidump file to the storage medium.

wherein the at least one processor is further configured to: allocating a buffer space in the memory during an initialization process; and reserve space on the storage medium drive suitable for writing the contents of the buffer space.

wherein at least one processor is further configured to: generate the minidump file by initially storing the thread information, the context information, the callstack information, the process information, and the information identifying the reason for generating the dump file to the buffer space, and then copying the minidump file from the buffer space to the storage.

wherein the at least one processor is further configured to: upon re-initialization after having stored the minidump file to the storage medium, access the minidump file on the storage medium and use at least a portion of the minidump file to further understand an exception that was at least one reason for generating the minidump file.

Claim 49 (Cancelled).

Claim 50 (Cancelled).

Claim 51 (Cancelled).

Claim 68 (Currently amended) The method as recited in claim 1 42, upon system re-initialization, transferring the minidump file from the storage medium to at least one external device.

Claim 71 (Currently amended) The computer-readable medium as recited in claim 20 30, having further computer-executable instructions for causing the at least one processor to perform acts comprising, upon system re-initialization, transferring the minidump file from the storage medium to at least one external device.

Claim 74 (Currently amended) The apparatus as recited in claim 39 49, wherein the at least one processor is further configured to, upon system re-initialization, transferring the minidump file from the storage medium to at least one external device.

Allowable Subject Matter

3. Claims 1-10, 14-20, 22-29, 33-48, 52-57 and 67-75 are allowed over prior art made of record.

The following is an examiner's statement of reasons for allowance:

As to claim 1, none of the prior art alone or in combination either teaches or suggests "allocating a buffer space in memory during an initialization process, wherein the buffer space is suitable for storing the gathered information; and reserving space on the storage medium suitable for writing the content of the buffer space. wherein generating the minidump file further includes initially storing the thread information, the context information, the callstack information, the process information, and the information identifying the reason for generating the minidump file to the buffer space, and then copying the minidump file from the buffer space to the storage medium and further comprising upon re-initialization, after having stored the minidump file to the storage medium, accessing the minidump file on the storage medium and using at least a portion of the minidump file to further understand an exception that was at least one reason for generating the minidump file" in conjunction with "generating a minidump file that does not include all volatile system memory containing at least: i. thread information for at least one running thread, ii. context information for the thread, iii. callstack information for the thread, iv. processing information for a process in which the thread is running, and v. information identifying a reason comprising one of the following reason: callstack fault, processor fault, and application program fault, for generating the minidump file; and storing the minidump file to a storage medium."

Claims 2-10, 14-19 and 67-69 are depended on claim 1; therefore, they are allowed under the same reason as claim 1.

Claim 20 is the computer-readable medium having instruction to perform the method in claim 1; therefore, claim 20 is allowed under the same reason as to claim 1.

Claims 22-29, 33-38 and 70-72 are depended on claim 20; therefore, claim 20 is allowed under the same reason as to claim 20.

Claim 39 is the apparatus to perform the method recited in claim 1; therefore, claim 39 is allowed under the same reason as to claim 1.

Claims 40-48, 52-57 and 73-75 are depended on claim 39; therefore, they are allowed under the same reason as to claim 39.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Patent:

Nagasuka et al.	(US. Patent No. 6,952,793 B2)	Patent date: 10/04/2005.
Goeller et al.	(US. Patent No. 6,898,737 B2)	Patent date: 05/24/2005.
Nagasuka et al.	(US. Patent No. 6,615,364 B1)	Patent date: 09/02/2003.
Vachon et al.	(US. Patent No. 6,681,348 B1)	Patent date: 01/20/2004.

Wilding (US. Patent No. 6,601,188 B1) Patent date: 07/29/2003.

NPL :

Ancona et al. Implementing the essence of reflection: a reflective run-time environment, Proceeding of the 2004 ACM symposium on Applied computing, page 1503-1507.

Contact Information

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Baoquoc N. To whose telephone number is at 571-272-4041 or via e-mail BaoquocN.To@uspto.gov. The examiner can normally be reached on Monday-Friday: 8:00 AM – 4:30 PM, EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Breene can be reached at 571-272-4107.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

Any response to this action should be mailed to:


Commissioner of Patents and Trademarks
Washington, D.C. 20231.

The fax numbers for the organization where this application or proceeding is assigned are as follow:

(571) -273-8300 [Official Communication]

BQ To

December 8, 2005


JEAN M. CORNELIUS
PRIMARY EXAMINER